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(54) Title: MANUFACTURING OF PHOTOCATALYTIC, ANTIBACTERIAL, SELFCLEANING AND OPTICALLY NON-INTERFERING SURFACES ON TILES AND GLAZED CERAMIC PRODUCTS

(57) Abstract: The principle of the deposition technique uses ultrafine crystals of ceramic oxides deposited relatively cold on melted or partially melted surfaces of ceramic tiles and other glazed ceramics, creating a spotty deposition without a significant change of optical properties of the surface. Because the desired nano-substance is deposited cold in a solid state form on the hot "sticky" surfaces and rapidly cooled down, deposited material is directly melted into the substrate surface, but its outer side remains unchanged. It allows creating a deposition with the desired parameters, for amplifying and extending the antibacterial protection in the dark, these surfaces may contain noble and heavy metals, deposited either dry as a part of the powder, or in a separate step, directly on the surface by wet deposition followed by drying and calcination.